

SECTION 03051 – CONCRETE COLOR ADDITIVE

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes color additive consisting of the following:
 - 1. Portland cement concrete paving.
 - 2. Stamped pattern concrete paving.
 - 3. Cast-in-place concrete columns.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's specifications and instruction for color additives and curing compounds.
- B. Samples for Initial Selection: Color additive manufacturer's full range sample chip set. Indicate color additive number and required dosage rate.
- C. Samples for Verification: Sample color chips indicating color additive numbers.
- D. Qualification Data: For firms and persons specified in "Quality Assurance" Article.

1.4 QUALITY ASSURANCE



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- A. Source Limitations for Color Additives: Obtain color additives of a uniform color, or a uniform blend within the ranges accepted for these characteristics, through one source from a single manufacturer for each product required.
 - B. Mock-Up: Provide full-scale mock-up on site to demonstrate methods of obtaining consistent visual appearance.
 - 1. Coordinate mock-up requirements with mock-ups specified in other sections. The same mock-up may be used for more than one purpose.
 - 2. Construct at least one mock-up before start of actual work, using materials and methods to be used in actual work.
 - 3. Minimum Size of Paving Mock-up: 4 feet by 4 feet (1200 mm by 1200 mm).
 - 4. Remove mock-up when no longer required for comparison with finished work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Color Additives: Comply with manufacturer's instructions. Deliver to site or batch plant in original, unopened packaging. Store in dry conditions.

1.6 PROJECT CONDITIONS

- A. Plant-Mixed Concrete: Schedule delivery of concrete to provide consistent mix times from batching until discharge.
- B. Concrete Paving: Schedule placement to minimize exposure to wind and hot sun before curing materials are applied. Avoid placing concrete if rain, snow, or frost is forecast within 24 hours. Protect fresh concrete from moisture and freezing.

PART 2 - PRODUCTS

2.1 MANUFACTURERS



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- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to:
1. Davis Colors.
 2. L. M Scofield Company.

2.2 COLORS

- A. Concrete Colors: Provide colors selected from color additive manufacturer's color lines.
1. Premium color line.
 2. Allow up to 3 colors on the Project.

2.3 MATERIALS

- A. Colored Concrete Additive: Made with pure concentrated mineral pigments for mixing into concrete and complying with ASTM C979.
1. Base dosage rates on weight of portland cement, fly ash, silica fume, lime, and other cementitious materials but not on aggregate or sand.
 2. Packaging: If color additives are to be added to mix at site, furnish color additives in pre-measured Mix-Ready disintegrating bags to minimize job site waste.
- B. Admixtures: Do not use calcium chloride admixtures.
- C. Curing Compound for Colored Concrete: Complying with ASTM C 309.

2.4 MIXES

- A. Concrete Mix: Mix color additives in accordance with manufacturer's instructions, until color additives are uniformly dispersed throughout the mixture, and disintegrating bags – if used – have disintegrated.

PART 3 - EXECUTION



3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.
 - 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FINISH

- A. Broomed Finish: Do not dampen brooms.
- B. Trowel Finish: Do not over-trowel or start troweling late.

3.3 CURING CONCRETE

- A. Maintain concrete between 65 and 85 degrees F (18 to 30 degrees C) during curing.
- B. Cure concrete using curing compound; apply curing compound in accordance with manufacturer's instructions.

3.4 REPAIRING AND CLEANING

- A. Remove and replace areas that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining areas.
- B. Final Cleaning: After colored concrete is thoroughly set and cured, clean and protect according to manufacturer's instructions.

END OF SECTION 03051

